



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/771,102 | 01/26/2001 | Jeremy M. Ford | 16356.752 | 7708 |

7590 06/27/2005

DAVID L. MCCOMBS
HAYES AND BOONE, LLP
901 MAIN STREET, SUITE 3100
DALLAS, TX 75202-3789

| EXAMINER |
|----------|
|----------|

CHAU, COREY P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2644

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/771,102 | | FORD, JEREMY M. | |
| | Examiner | | Art Unit | |
| | Corey P. Chau | | 2644 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 10-12, 15-17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 11, 12, 15, 16, 17, 19, 20, 21, and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1, 12, 16, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 1, 12, 16, and 22 recites "a low current voltage regulator", which does not clearly disclose wherein the second voltage supply is a low current voltage regulator. Therefore, it is unclear to the Examiner because the claims seem to disclose three different voltage supply, instead of two voltage supply, wherein the second voltage supply is a low current voltage regulator as disclosed in the specification.
3. Claims 1, 12, 16, and 22 recites "the second switch coupled to be driven by the jack sense indicator and including the second voltage supply, a first contact of the second switch being coupled to the first voltage supply, and a second contact of the second switch being coupled to an output of a low current voltage regulator coupled to the first voltage supply", but does not clearly disclose which contact the second switch is coupled to in response to the jack sense indicator. Therefore it is unclear to the Examiner, the operation of the second switch coupled to be driven by the jack sense indicator.
4. Claim 12 recites the limitation "the second switch" in line 28. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 10, 11, 12, 15, 16, 17, 19, 20, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of U.S. Patent Application Publication 20020059008 to Wood.

7. Regarding Claim 1, Applicant's admitted prior art discloses an audio system for use with a personal computer (page 1, line 12 to page 2, line 17), the audio system comprising:

a first voltage supply (Fig. 1);

a first switch (SW1);

an audio amplifier including an inverting amplifier and a non-inverting amplifier, each being coupled to an input signal (Fig. 1);

an output of the noninverting amplifier being coupled to a first speaker output connection (Fig. 1);

an output of the inverting amplifier being coupled through the first switch to a second speaker output connection (Fig. 1);

a jack sense indicator (50) coupled for driving the first switch and detecting connection of a listening device to a jack (Fig. 1);

in response to the listening device being connected to the jack, the first switch being opened (Fig. 1).

Applicant's admitted prior art does not expressly disclose a second voltage supply; a second switch; and in response to the listening device being connected to the jack, the second switch coupled to be driven by the jack sense indicator and including the second voltage supply, a first contact of the second switch being coupled to the first voltage supply, and a second contact of the second switch being coupled to an output of a low current voltage regulator coupled to the first voltage supply.

Wood discloses a control voltage data which causes the power amplifier to switch its output signals on a third and fourth wires (i.e. input signals) to a lower power levels, therefore the headphones is not damaged due to excess power delivered to the headphone and the listener's ears are not harmed (page 4; paragraph 0045).

Therefore it would have been obvious to one having ordinary skill in the art to modify Applicant's admitted prior art with the teaching of Wood to incorporate a second voltage supply in order to provide a lower power level to the power amplifier (i.e. using the current conveyor and shunt voltage regulator to change the voltage at 404)(Figs. 4 and 5); a second switch (i.e. to provide the power amplifier of Applicant's admitted prior art the ability to switch its output signals on the input signals to a lower power level, as taught by Wood)(page 4, paragraph 0045); and in response to the listening device being connected to the jack, and the second switch coupled to be driven by the jack sense indicator and including the second voltage supply (i.e. using the jack sense indicator of Applicant's admitted prior art as modified to make the second switch, switch between

Art Unit: 2644

the first voltage and the second voltage, just like Wood utilize the comparator 512, microprocessor 414, current conveyor 410, and data receiver 528 to provide a control voltage data to cause the power amplifier to switch its output on the third and fourth wires to a lower power level in response to the headphone plug being inserted) (Fig. 5; page 4, paragraph 0045), a first contact of the second switch being coupled to the first voltage supply, and a second contact of the second switch being coupled to an output of a low current voltage regulator coupled to the first voltage supply (i.e. Applicant's admitted prior art as modified discloses a second switch to provide the power amplifier the ability to switch its output to the input signals to a lower power level, therefore it is obvious a first contact is coupled to the first voltage supply and the second contact is to the lower power level which is supply from the use of the current conveyor and shunt voltage regulator), therefore the headphones is not damaged due to excess power delivered to the headphone and the listener's ears are not harmed.

8. All elements of Claim 10 are comprehended by Claim 1. Claim 10 is rejected for the reasons stated above apropos to Claim 1 (Wood, Figs. 4 and 5; page 4, paragraph 0045).

9. All elements of Claim 11 are comprehended by Claim 1. Claim 11 is rejected for the reasons stated above apropos to Claim 1 (Wood, Figs. 4 and 5; page 4, paragraph 0045).

10. Claim 12 is essentially similar to Claim 1 and is rejected for the reason stated above apropos to Claim 1 (page 1, line 12 to page 2, line 17; Wood, Figs. 4 and 5).

Art Unit: 2644

11. Claim 15 is essentially similar to Claim 10 and is rejected for the reason stated above apropos to Claim 10.

12. Claim 16 is essentially similar to Claim 1 and is rejected for the reason stated above apropos to Claim 1 (page 1, line 12 to page 2, line 17; Wood, Figs. 4 and 5).

13. Regarding Claim 17, Applicant's admitted prior art as modified discloses the jack is connected between either the inverting amplifier or the noninverting amplifier and GND (Fig. 1).

14. Claim 19 is essentially similar to Claim 10 and is rejected for the reason stated above apropos to Claim 10.

15. Claim 20 is essentially similar to Claim 11 and is rejected for the reason stated above apropos to Claim 11.

16. Regarding Claim 21, Applicant's admitted prior art as modified discloses in response to the listening device being connected to the jack, the output of the regulator is coupled to the noninverting amplifier (i.e. since the noninverting amplifier is connected to the jack, it is obvious the low power level is supplied to the noninverting amplifier when the jack is connected).

17. Claim 22 is essentially similar to Claim 1 and is rejected for the reason stated above apropos to Claim 1 (page 1, line 12 to page 2, line 17; Wood, Figs. 4 and 5).

Response to Arguments

18. Applicant's arguments with respect to claims 1, 10, 11, 12, 15, 16, 17, 19, 20, 21, and 22 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2644

19. In Applicant's subsequent response, please include a copy of the prior art as discloses in Fig. 1.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P. Chau whose telephone number is (571)272-7514. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 22, 2005


XU MEI
PRIMARY EXAMINER